



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/678,319	10/03/2000	Robert P. Siegel	105715	4804

7590

07/08/2003

OLIFF & BERRIDGE, PLC
P. O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

BARBEE, MANUEL L

ART UNIT

PAPER NUMBER

2857

DATE MAILED: 07/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/678,319

Applicant(s)

SIEGEL ET AL.

Examiner

Manuel L. Barbee

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 18, 19, 23, 25, 27, 28, 32-34, 37, 38 and 44 are rejected under 35 U.S.C. 102(b) as being anticipated by Hill, Jr. et al. (US Patent No. 5,057,866).

With regard to collecting and processing data, as shown in claims 1, 18, 32 and 44, Hill, Jr. et al. teaches logging events and physical data in a copier (col. 4, lines 6-37; Figure 3, log file 158, physical data file 185). With regard to obtaining an initial diagnosis and sending the data over a distributed network based on the initial diagnosis, as shown in claims 1, 18, 32 and 44, Hill, Jr. et al. teach comparing the data to thresholds and sending data to a remote computer if necessary (col. 6, lines 9-31; col. 4, line 47 - col. 5, line 4).

With regard to threshold analysis, as shown in claim 2, 27, 28, Hill, Jr. et al. teach comparing the collected data to thresholds (col. 6, lines 9-31). With regard to a remote diagnostic system, as shown in claims 3, 19 and 33 Hill, Jr. et al. teach a remote computer that further analyzes the collected data (col. 6, lines 9-48). With regard to the remote communication system sending a communication that includes repair information, or a revised set of operating instructions, as shown in claims 4, 23, 25, 33, 34 and 38, Hill, Jr. et al. teach sending new thresholds to the copier (col. 6, lines 9-48).

With regard to transmitting data over a distributed network, as shown in claims 5 and 37, Hill, Jr. et al. teach sending data over a modem to another computer for further processing (col. 4, lines 47-55).

3. Claims 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Kennedy et al. (US Patent No. 4,241,406).

With regard to at least one sensor that detects a signature waveform and a signature analysis circuit, Kennedy et al. teach detecting a waveform representing the pressure of an ink jet and analyzing the rise time of the waveform (col. 2, line 56 - col. 3, line 10; col. 5, line 32 - col. 6, line 35).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6-9, 20, 22, 29-31, 36, 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill, Jr. et al. in view of Kennedy et al.

Hill, Jr. et al. teach all the limitations of claim 1 upon which claims 6-9 depend, claim 18 upon which claims 22 and 29-31 depend, claim 32 upon which claims 40 and 41 depend, and claim 33 upon which claim 36 depends. Hill, Jr. et al. further teach a remote diagnostic system, as shown in claims 6, 7 and 31. Hill, Jr. et al. do not teach detecting a signature waveform and digitizing, as shown in claims 6, 29, 30, 40 and 41. Hill, Jr. et al. do not teach analyzing the waveform, as shown in claims 7-9 and 31. Hill,

Jr. et al. do not teach sending repair information or a service request to a third party, as shown in claims 20, 22 and 36.

Kennedy et al. teach detecting a waveform representing the pressure of an ink jet and analyzing the rise time of the waveform (col. 2, line 56 - col. 3, line 10; col. 5, line 32 - col. 6, line 35; Figure 5). A computer analyzes the data and therefore digitizing the data would be inherent (Figure 1, sensing system 21, computer 25). Kennedy et al. teach marking an ink jet head for maintenance based on the analysis (col. 5, lines 49-54). Therefore repair information and a service request is communicated to a third party who will service the ink jet. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the copier calculator, as taught by Hill, Jr. et al., to include detecting and analyzing a signature waveform from a component of the printer or copier, as taught by Kennedy et al., because then proper operation of the ink jet head would have been assured (Kennedy et al., col. 1, lines 17-30). It would further have been obvious to one of ordinary skill in the art at the time the invention was made to modify the copier calculator, as taught by Hill, Jr. et al. to include communicating repair information and a repair request to a third party, because then proper operation of the ink jet head would have been assured (Kennedy et al., col. 1, lines 17-30).

6. Claims 11-13, 15-17, 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy et al. in view of Hill, Jr. et al.

Kennedy et al. teach all the limitations of claim 10 upon which claims 11-13 and 15-17 depend. With regard to receiving and analyzing a signature waveform, as shown in claims 42 and 43, Kennedy et al. further teach detecting and analyzing a signature

waveform, as shown above with regards to claims 6 and 10. With regard to communicating repair information and a service notification to a third party, as shown in claims 13 and 15, Kennedy et al. further teach marking an inkjet head for service (col. 5, lines 49-54). Kennedy et al. do not teach a remote diagnostic system, as shown in claims 11-13, 15-17 and 42. Kennedy et al. do not teach sending a revised set of operating instructions, as shown in claim 16, or using a distributed network, as shown in claim 17. Hill, Jr. et al. teach a remote diagnostic system (col. 6, lines 9-48). Hill Jr. teach using a modem to send new thresholds to the copier (6, lines 9-48). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system for analyzing a ink jet, as taught by Kennedy et al., to include a remote computer for analysis, as taught by Hill, Jr. et al., because then it would not have been necessary for a technician to be on site for all repairs (Hill, Jr. et al., col. 1, lines 5-66).

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy et al. in view of Hill, Jr. et al. as applied to claims 10-12 above, and further in view of Rosenbaum et al (US Patent No. 6,584,430).

Kennedy et al. and Hill, Jr. et al. teach all the limitations of claims 10-12 upon which claim 14 depends. Kennedy et al. and Hill, Jr. et al. do not teach sending a parts request from the remote diagnostic system, as taught in claim 14. Rosenbaum teaches remotely monitoring an analysis device and ordering a component when needed (col. 1, lines 45-64). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the analysis system combination, as taught by Kennedy

Art Unit: 2857

et al. and Hill, Jr. et al., to include ordering parts, as taught by Rosenbaum et al., because then it would not have been necessary for a technician to be on site for all repairs (Hill, Jr. et al., col. 1, lines 5-66).

8. Claims 24, 26 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill, Jr. et al.

Hill, Jr. et al. teach all the limitations of claims 18, 19 and 23 upon which claim 24 depends, claims 18, 19 and 25 upon which claim 26 depends and 33 and 38 upon which claim 39 depends. The Examiner takes Official Notice that it is well known to verify the operation of a device when new operating instructions are implemented. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the copier calculator, as taught by Hill, Jr. et al., to include verification of newly received instructions, because then proper operation of the copier would have been assured.

9. Claims 21 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hill, Jr. et al. in view of Rosenbaum et al.

Hill, Jr. et al. teach all the limitations of claims 18 and 19 upon which claim 21 depends and claim 33 upon which claim 35 depends. Kennedy et al. and Hill, Jr. et al. do not teach sending a parts request from the remote diagnostic system, as taught in claim 35. Rosenbaum teach remotely monitoring an analysis device and ordering a component when needed (col. 1, lines 45-64). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the copier calculator, as taught by Hill, Jr. et al., to include ordering parts, as taught by

Rosenbaum et al., because then it would not have been necessary for a technician to be on site for all repairs (Hill, Jr. et al., col. 1, lines 5-66).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Draeger et al. (US Patent No. 5,371,692) teach adding a new program to an electronic device.

Abbata et al. (US Patent No. 6,268,733) teach analyzing a current signature waveform.

Kim et al. (US Patent No. 6,473,788) teach servicing a network peripheral over the World Wide Web.

Kundu et al. (US Patent No. 6,510,398) teach a constrained signature-based test.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manuel L. Barbee whose telephone number is 703-308-0979. The examiner can normally be reached on Monday-Friday from 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on 703-308-1677. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

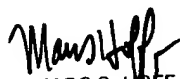
Application/Control Number: 09/678,319

Page 8

Art Unit: 2857

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-0976.

mlb
June 30, 2003


MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800